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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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01/30/2002

Nir Cohen

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20529

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05/23/2007

NATH & ASSOCIATES

112 South West Street

Alexandria, VA 22314

EXAMINER

NGUYEN, TAN D

ART UNIT

PAPER NUMBER

3629

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/058,830		COHEN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Tan Dean D. Nguyen		3629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed 2/16/07 has been entered. Claims 1-14 are pending.  
Claims 9-14 are new and have been added.

### ***Claim Objections***

1. Claims 2-4 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It's not clear how claim 2 further limits the 2 major steps of "computing demand forecast information" using 2 separate computer servers at the same time (simultaneously) or steps (c)-(d) of claim 1? It's not clear how "a task" or "entire task" relates or further limits the 2 major steps of "computing demand forecast information" using 2 separate computer servers at the same time (simultaneously) as shown in independent method claim 1 previously.

Similarly claims 3-4 are objected for the same reason.

Similarly, claims 6-8 (part of 5) are rejected for the same reasons set forth in the rejection of dep. claims 2-4 (part of 1) above.

Similarly, claims 12-14 (part of 10) are rejected for the same reasons set forth in the rejection of dep. claims 2-4 (part of 1) above.

***Claim Rejections - 35 USC § 112***

**2. Claims 2-4, 6-8, and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

1) In claims 2-3, 6-7, 12-14, it's not clear how "a task" or "entire task" relates or further limits the 2 major steps of "computing demand forecast information" using 2 separate computer servers at the same time (simultaneously) as shown in independent method claim 1 previously.

2) In claim 3, it's not clear what the connection of "a user entered value" to the rest or body of the claim? In other word, what do you do with the "user entered value"?

3) Claim 4 recites the limitation "the total number of bottom level nodes" in line 1. There is insufficient antecedent basis for this limitation in the claim.

4) Similarly, dependent claims 7-8 (part of 5), which have the same limitations as in dep. claims 3-4 (part of 1) above, are rejected for the same reasons set forth in dep. claims 3-4 above.

5) Similarly, dependent claims 12-14 (part of 10), which have the same limitations as in dep. claims 3-4 above, are rejected for the same reasons set forth in dep. claims 3-4 above.

***Claim Rejections - 35 USC § 103***

**3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 1-4 (method<sup>1</sup>), 5-8 (system<sup>1</sup>), 9-14 (method<sup>2</sup>) are rejected under 35 U.S.C. 103(a) as being unpatentable over (1) Applicant's Admitted Prior Art (AAPA) in view of (2) ROBERTAZZI et al.**

As of 2/16/2007, **independent method<sup>1</sup> claim 1** is as followed:

1. (Currently Amended) Computer implemented method for computing demand forecast information for a demand forecast application capable of being graphically represented by a demand forecast tree having a single top level node with at least two branches directly emanating therefrom each having at least one node with a time series of observations associated therewith, the method comprising the steps of:

(a) providing a database for storing time series of observations;

(b) providing at least two computer servers each independently capable of computing demand forecast information for an entire branch of the demand forecast tree; and

(c) computing demand forecast information from said observations stored in said database using one of said at least two computer servers for at least one of said two branches of the demand forecast tree; and

(d) simultaneously with said one computer server computing demand forecast information from said observations stored in said data base computing demand forecast information from said observations stored in said data base using said other of said at least two computer servers for at least two branches of the demand forecast tree.

Note that limitations followed the phrase "capable of ....." in the preamble and step (b) carry no-patentable weight since this merely means "having potential of" or "having the capacity of", and in a claim language, no weight is given until the element or

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system is actually doing something with the capacity or capability, for example, computing a demand forecast information.

As shown in the "Background of the Invention" on pages 1-2, **AAPA** fairly teaches the claimed invention except for steps (c ) and (d). As discussed, AAPA mentions the current problem of the demand forecast computing application that the "run time" or "computing time" of the demand forecasting information is intolerably long due to increasing complicated demand forecast trees (strategies) and there is a need to shorten run time. The demand forecast information is computed on the basis of historical time series of observations typically associated with bottom level nodes (tasks) by a forecast engine commercially available, for example, from Demantra Ltd, Israel under the name Demantra TM Demand Planner. One exemplary demand forecast application is the forecast of demand for a consumer item at an outlet as represented by a bottom level node on the basis of historical sales of the consumer item at the outlet.

In a similar computer-implemented method for load (computing) sharing controller for optimizing resource utilization cost, **ROBERTAZZI et al** fairly teaches the concepts of steps (c ) and (d) by breaking up the large group (tree or load) of tasks (computing application) into multiple tasks (branches) for independent concurrent processing (computing or programming) among independent computer processors (servers) for the benefit of completing the computations in a shorter period of time {see col.1, lines 21-67, col. 2, lines 40-45, col. 13, lines 50-67, Figs. 2, 6, 8}. It would have been obvious to modify the teachings of AAPA by breaking the computing application task into discrete multiple tasks for independent concurrent processing using

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at least 2 computer servers (processors) for the benefit of **reducing computing time** (or faster solution time, see col. 1, line 36-37), as taught by ROBERTAZZI et al above.

Note that the selection of any sub-group of tasks or loads, i.e. at least one of the two branches of the demand forecast tree or bottom level nodes, etc., would have been obvious to a skilled artisan as mere selection of other similar or desired tasks/loads (nodes) for computing purpose in view of the teachings of AAPA and ROBERTAZZI et al above.

**As for dep. claims 2-3** (part of 1 above), which deal with well known allocation (dividing or sharing) parameters, these are fairly taught in ROBERTAZZI et al col. 1, lines 21-65.

**As for dep. claim 4** (part of 1 above), which deal with well known task (load) dividing parameters, i.e. total number of bottom level nodes of the branches of each task is substantially equal for all the tasks, these are fairly taught in ROBERTAZZI et al col. 1, lines 21-67, col. 2, lines 1-48.

**As for independent system<sup>1</sup> claim 5**, which is the system to carry out the method of independent method claim 1 above, it's rejected over the system of ROBERTAZZI et al {see Fig. 3} to carry out the method claims as rejected in claim 1 above.

**As for dep. claims 6-8** (part of 5 above), which have the same limitations as in dep. claims 2-4 above, they are rejected over the system to carry out the method steps as shown in the rejections of dep. claims 2-4 above.



**As for independent method<sup>2</sup> claim 9**, which has similar scope of independent method claim 1 above, using 2 computer servers to carry the loads/tasks vs. allocating the load/tasks into at least 2 tasks and then using 2 computer servers to run the tasks, it's rejected over the system of ROBERTAZZI et al {see Fig. 3} to carry out the method claims as rejected in claim 1 above. The concept of "allocation" is taught multiple times in col. 1, col. 2, col. 3, Fig. 7 "... *load or task allocation*", col. 4, lines 1-10, "... *divisible load of task can be segmented*".

**As for dep. claims 10-14** (part of 5 above), which have the same limitations as in dep. claims 2-4 above, they are rejected over the system to carry out the method steps as shown in the rejections of dep. claims 2-4 above.

### ***Response to Arguments***

7. Applicant's arguments, see Amendment/Response, filed Feb. 16, 2007, with respect to all the previous rejections have been fully considered and are not persuasive.

1) Applicant's comment that ROBERTAZZI et al's limitation of "concurrent" is different from "simultaneously" of claim 1, step (d) is not persuasive, from the Webster dictionary, both means "occurring at the same time", therefore they are equivalent terms for describing actions or steps occurring at the same time.

2) Applicant's comment that ROBERTAZZI et al fails to teach the task, demand forecast information with a demand tree having a single top level node and bottom level nodes is noted, however, first of all, these are taught in AAPA as cited above,

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ROBERTAZZI et al are cited basically cited for the teachings of steps (c ) and (d) as cited above. Secondly, these are fairly taught in Fig. 8 and cols. 13-14 of ROBERTAZZI et al.

3) Applicant's comment that "ROBERTAZZI et al fails to teach the step of "dividing the data load based on branches (claims 1, 5, and 9) {see page 14, 2<sup>nd</sup> paragraph}, however, this limitation is not in the claims, see claim 1 cited above. There are 2 providing steps (a) and (b) and 2 computing steps (c ) and (d).

8. In response to applicant's argument that ROBERTAZZI et al and AAPA is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, they both fairly deal with allocating loads in large group of data using multiple computer servers running at the same time to reducing computing/running time or improving computing efficiencies with the benefits cited by ROBERTAZZI et al on col. 1, lines 20-55.

### Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) US 5,298,370 by Tang et al, discloses a computer operating process allocating tasks between 1 and 2<sup>nd</sup> processors at run time based upon current processor load.

(2) US 6,363,411 by Dugan et al, discloses an intelligent network for load controlling and management.

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(3) US 2002/0062454 by Fung discloses a dynamic power and workload management for multi-server system.

(4) US 2003/0036890 by Billet et al disclose a predictive method comprising decision trees and branches for forecasting purpose which is similar to the teachings of AAPA as cited above.

No claims are allowed.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct@uspto.gov>. Should you have any questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

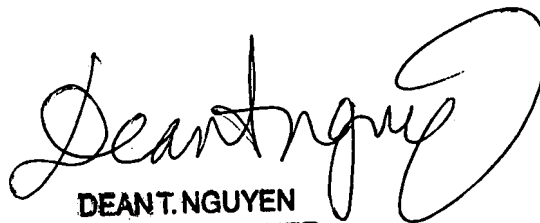
In receiving an Office Action, it becomes apparent that certain documents are missing, e. g. copies of references, Forms PTO 1449, PTO-892, etc., requests for copies should be directed to Tech Center 3600 Customer Service at (571) 272-3600, or e-mail [CustomerService3600@uspto.gov](mailto:CustomerService3600@uspto.gov).

Any inquiry concerning the merits of the examination of the application should be directed to Dean Tan Nguyen at telephone number (571) 272-6806. My work schedule is normally Monday through Friday from 6:30 am - 4:00 pm. I am scheduled to be off every other Friday.

Should I be unavailable during my normal working hours, my supervisor John Weiss can be reached at (571) 272-6812.

The main FAX phone numbers for formal communications concerning this application are (571) 273-8300. My personal Fax is (571) 273-6806. Informal communications may be made, following a telephone call to the examiner, by an informal FAX number to be given.

dtn  
May 14, 2007

  
**DEAN T. NGUYEN**  
**PRIMARY EXAMINER**